

## ***Interactive comment on “Assessing Chinese flood protection and its social divergence” by Dan Wang et al.***

### **Anonymous Referee #1**

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The manuscript developed a new flood protection dataset for China based on the relevant policy and multi-source data. Such a dataset is urgently needed as it is a foundation of reliable flood risk assessment and effective risk management, but scarce in reality. This dataset revealed how an area should be protected according to the relevant policy. Thus it helped to identify the potential social divergence and the vulnerable groups in terms of lower flood protection. There is a limited amount in the literature on this topic, so it fills an important gap. The manuscript is generally well written and interesting. Specific comments are as follows. 1. lines 12-13. The validation can only reveal that the policy-based FPLs is a reliable proxy for the actual FPLs in Chinese case. It should be with caution to extend the conclusion. 2. lines 13-14. More explanations are needed on how Chinese flood risk may have been overestimated. 3. lines

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62, references are needed to say the FPL data are not well accessible. 4. lines 93, the data source of the GDP data should be specified. 5. Table 2, the caption is unclear. Are the vulnerable exposed population in the brackets different from the followed vulnerable population? 6. figure 2, the axis of flood protection levels should increase from the left to the right. 7. Figure 3, the boundary lines are difficult to identify, particularly for the provincial level.

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